

AMENDMENTS TO THE CLAIMS

Listing of Claims

A listing of the entire set of pending claims is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Cancelled)
2. (Currently amended) The method of claim 8[[1]], wherein the first operating frequency lies between approximately 50 and 200 Hz.
3. (Currently amended) The method of claim 8[[1]], wherein the lamp current is superimposed with current pulses in the first mode of operation.
4. (Currently amended) The method of claim 8[[1]], wherein the second operating frequency is higher than the first operating frequency by a factor between approximately 2 and 20.
5. (Currently amended) The method of claim 8[[1]], wherein the second operating frequency has a value of between approximately 300 and 1500 Hz.
6. (Currently amended) The method of claim 8[[1]], wherein the first limit value lies at a voltage that is approximately 10 V higher than a minimum voltage of a lamp driver unit that can still drive the lamp with its rated power or a desired power.
7. (Currently amended) The method of claim 8[[1]], wherein the first limit value has a hysteresis.
8. (Currently amended) The method of claim 1, A method of operating a discharge lamp in:
a first mode of operation having a first operating frequency, which is activated when a burning voltage of the lamp is at least as high as a first limit value,
a second mode of operation with a second operating frequency that is higher than the first operating frequency, which is activated when the burning voltage of the lamp is not more than the first limit value, and
with a third mode of operation which is activated when the burning voltage of the lamp is not more than a second limit value that is lower than the first limit value, and in which third mode of operation a discharge path between electrodes of the lamp is lengthened by a change in at least one operating parameter of the lamp until the burning voltage is at least as high as the second limit value.

9. (Previously presented) The method of claim 8, wherein the at least one operating parameter includes a third operating frequency that is lower than the second operating frequency by a factor of between approximately 2 and 1000.

10. (Previously presented) The method of claim 8, wherein the at least one operating parameter includes a DC component that is applied to the lamp.

11. (Previously presented) The method of claim 8, wherein the second limit value lies at a level that is approximately 5 V higher than a minimum voltage of a lamp driver unit that can still drive the lamp with its rated power or a desired power.

12. (Currently amended) The method of claim 8[[1]], wherein the second operating frequency is synchronized with an image frequency of a display system.

13. (Currently amended) A circuit arrangement comprising:

a controller that is configured to operate a discharge lamp in:

a first mode of operation having a first operating frequency, which is activated when a burning voltage of the lamp is at least as high as a first limit value, and

a second mode of operation with a second operating frequency that is higher than the first operating frequency, which is activated when the burning voltage of the lamp is not more than the first limit value, and

a third mode of operation which is activated when the burning voltage of the lamp is not more than a second limit value that is lower than the first limit value, and in which third mode of operation a discharge path between electrodes of the lamp is lengthened by a change in at least one operating parameter of the lamp until the burning voltage is at least as high as the second limit value

a comparator for comparing the burning voltage with the first limit value, and

a generator for generating the first and second operating frequencies of the lamp current in dependence on an output signal of the comparator.

14. (Previously presented) A lighting unit that includes a high-pressure gas discharge lamp and a circuit arrangement as claimed in claim 13.

15. (Original) A projection system with a projection display and a lighting unit as claimed in claim 14.

16. (Cancelled)

17 (Cancelled)

18. (Previously presented) The method of claim 9, wherein at least one of the second operating frequency and third operating frequency is synchronized with an image frequency of a display system.

19. (Previously presented) The method of claim 8, wherein the discharge path is lengthened by the change in the at least one operating parameter until the burning voltage is at least as high as the first limit value.

20-22 (Cancelled)